

Abstract

Torque generating apparatus and method for automotive applications. A brushless DC motor is design optimized to operate at a design voltage, V_s , along an optimal speed/torque profile. A DC/DC converter is provided for supplying power at an alternate voltage, V_a , to enable motor operation at speed/torque combinations not on the optimal profile. A switch is provided to enable the motor to be operated selectively at either of the two voltages.